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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/650,198	08/29/2000	Ronald S. Cok	81472THC	8639

1333 7590 10/17/2005

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EXAMINER

LE, UYEN CHAUN

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/650,198	COK ET AL.	
	Examiner	Art Unit	
	Uyen-Chau N. Le	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Prelim. Amdt/Amendment

1. Receipt is acknowledged of the Amendment filed 12 September 2001.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "a plurality of invisible layers" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be

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necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 2, 22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Koltai et al (US 6,104,812).

Re claims 1, 2, 22 and 23: Koltai et al discloses an apparatus and process for hiding a secondary image within a primary image of passport, licenses, photo ID's, etc. (fig. 18), wherein the primary image is visible to an un-aided eye while the secondary image is hidden/invisible from the un-aided eye, wherein the secondary image having additional information about the primary image (e.g., the primary image is a person's photograph, and the secondary image is the person's signature, the person's height or weight, etc.) (col. 13, lines 55-67). The primary image is divided into elements, lines, cells, pixels, dots, etc., which may be used as information carriers for encoding the secondary images/invisible data elements; each of the secondary images/invisible data elements is encoded in a corresponding and in registration with a respective pixel/cell/dot of the primary image/visible image and each of the secondary images/invisible data elements is being in the same physical pixel location as a respective image pixel of the primary/visible image (figs. 4-12; col. 6, line 60 through col. 10, line 35). Plurality of secondary/invisible images encoded

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into plurality components/layers of the primary/visible image (e.g., cyan 1502C, magenta 1502M, etc.) producing a plurality of "invisible image layers" and each of the "invisible image layers" can be read individually (col. 14, line 1 through col. 17, line 30).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 6-8, 17, 19-21, 27-32, 38 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al in view of Wang et al (US 5,337,361). The teachings of Koltai et al have been discussed above.

Re claims 6-8, 17, 19-21, 27-32, 38 and 40-42: Koltai has been discussed above and further discloses that the invisible can read by an optical reading device or an electronic decoder (col. 8, lines 17+), but is silent with respect to the visible image is a computer generated/photographic image; the invisible is detectable in the ultraviolet region of the electromagnetic spectrum and the article contains a temporal sequence of images, respectively.

Wang et al teaches (figs. 1A-1D; col. 3, line 50 through col. 5, line 38) an image bearing article, comprising: a support 16; a visible image 17, which can be a graphic/computer generated image or a photograph, recorded on the support 16 (fig. 1; col. 3, line 52+); and invisible information 18 recorded on the support 16, the invisible information 18 relating to and in registration with elements of the visible image 17; wherein the invisible information 18 is detectable in the ultraviolet region of the spectrum (col. 3, lines 67+);

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wherein the article contains a temporal sequence of images (col. 5, lines 35+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Wang et al into the system as taught by Koltai et al in order to provide Koltai et al with an alternative means for encoding/decoding invisible data (i.e., ultraviolet, infrared, etc.), which would provide a more secure system wherein an authorized individual cannot read or decode the invisible information from the medium/article without the necessary equipment (i.e., ultraviolet, infrared), and therefore an obvious expedient.

8. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al. The teachings of Koltai et al have been discussed above.

Re claims 9-11: Kotai et al discloses a system in which a user can select any desired primary/visible image and secondary/invisible image/information (figs. 17-18; col. 11, line 50 through col. 13, line 54), but is silent with respect to the invisible data elements are distance information, classification, and a difference, respectively, relating to a respective one of the image pixels.

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It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to encoded distance information, classification, and a difference, respectively, relating to a respective one of the image pixels into the secondary/invisible image/data elements of Koltai et al due to the fact that the encoding system/process can encode any desired information that is selected by the user, and therefore an obvious expedient.

9. Claims 3-5, 12, 18, 24-26, 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al as modified by Wang et al as applied to claims 1 and 22 above, and further in view of Williams et al (US 6,610,386). The teachings of Koltai et al as modified by Wang et al have been discussed above.

Re claims 3-5, 12, 18, 24-26, 33 and 39: Koltai et al/Wang et al have been discussed above but fails to teach or fairly suggest that the invisible information is recorded as a pattern of invisible ink/invisible dye; the invisible information is detectable in the infrared region of the spectrum.

Williams et al teaches the invisible patterns on sheet 14 is recorded as a pattern of invisible ink/dye (fig. 3; col. 3, lines 45+) and the invisible information is absorbed in the IR or UV regions (col. 3, lines 58+).

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It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to use invisible ink/dye as taught by Williams et al to record the invisible information of Koltai et al/Wang et al in order to provide Koltai et al/Wang et al with a more secure system wherein the invisible information only absorb in the infrared or ultraviolet regions. Furthermore, the luminescent property of the invisible ink/dye in the infrared or ultraviolet regions would enhance the reading quality, and thus producing a more accurate result/system.

10. Claims 13-16 and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koltai et al as modified by Wang et al as applied to claims 1 and 22 above, and further in view of Rhoads (US 6,252,963). The teachings of Koltai et al as modified by Wang et al have been discussed above.

Re claims 13-16 and 34-37: Koltai et al/Wang et al have been discussed above but fails to teach or fairly suggest that the visible image is a constrained image and the invisible information represents the difference between the constrained image and an unconstrained version of the image.

Rhoads teaches a constrained image and the invisible information represents the difference between the constrained image and an unconstrained version of the image (figs. 22-26 and

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28; col. 3, lines 34-50; col. 58, line 64 through col. 63, line 22).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of the teachings of Rhoads into the system as taught by Koltai et al/Wang et al in order to provide Koltai et al/Wang et al with a more secure system wherein a constrained image and related information on the card/medium can be verified readily with an unconstrained version of the image (i.e., digital image taken of customer).

Response to Arguments

11. Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

Newly cited reference to Koltai et al was used in the new ground of rejection to further meet the newly amended limitation of the claimed invention.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Blazey (US 6101039 A); Sansone et al (US 6142380 A); Dymetman et al (US 6330976 B1); Nelson (US 6556690 B1); Nishikado et al (US 6572025 B1); Field (US 6734887 B2); Field (US 6808118 B2) are as of interest and illustrate to a similar structure of a non-image pixel data stored on hard-copy image media.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 571-272-2397. The examiner can normally be reached on First Monday 5:30AM-1:30PM and Tues-Fri 5:30AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Uyen-Chau N. Le

Examiner

AU 2876

October 6, 2005